REMARKS

The present application was filed on August 26, 2003 with claims 1-33. Claims 1-33 were allowed on September 7, 2007. On October 17, 2007, Applicants filed a Request for Continued Examination in order to submit an Information Disclosure Statement citing a single reference and Declaration of Prior Invention Under 37 C.F.R. § 1.131 sufficient to predate that reference.

In the non-final Office Action dated November 16, 2007, the Examiner rejected claims 1- 33 under 35 U.S.C. §102(b) as being unpatentable over Bigus et al., "AutoTune: A Generic Agent for Automated Performance Tuning," *Practical Application of Intelligent Agents and Multi Agent Technology*, 2000 (hereinafter Bigus).

In this response, Applicants respectfully traverse the §102 rejection. Applicants respectfully request reconsideration of the present application in view of the remarks below.

With regard to the §102 rejection, Applicants initially note that MPEP §2131 specifies that a given claim is anticipated "only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," citing Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, MPEP §2131 indicates that the cited reference must show the "identical invention . . . in as complete detail as is contained in the . . . claim," citing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 1 is directed to a method of constructing a model representative of a resource for use in managing a service associated with the resource, comprising the steps of associating a resource abstract model with the resource; wherein the resource abstract model is configured to automatically determine a set of resource metrics to be used to construct a model representative of the resource such that a reduced set of resource metrics is considered; and constructing the model representative of the resource based on the reduced set of resource metrics obtained in accordance with the resource abstract model. It should be noted that the present specification at page 9, lines 7-8, indicates that a resource abstract model "may be considered a computer readable description of one or more metrics."

The Examiner contends that the steps recited above are taught by Bigus at page 5, last paragraph, and page 11, lines 6-10. Page 5, last paragraph, of Bigus recites, in relevant part:

> Our starting point is the target's system model. As shown in Figure 3, the system model is an abstraction of the target that outputs service levels given inputs for workload, configuration, and settings of tuning controls. This model can be constructed using various learning approaches that enable different control algorithms to be employed. In our current prototype, the system model is obtained by training a neural network based on measured values of the controlled target over a wide range of workloads and tuning controls.

Page 11, lines 1-10, which include the section cited by the Examiner, of Bigus recite:

> The core NeuralPredictionAgent . . . . uses an AbleImport to read training and test data from text files, uses two AbleFilters, one to pre-process the data and one to post-process the data, and a back propagation neural network to perform the regression function. . . . The user need only specify the source data file (and a corresponding meta-data file). The neural prediction agent then scans the source data and automatically generates the scaling and transformation templates used by the AbleFilters to pre- and post- process the data going into and out of the neural network. Based on the number of inputs and output fields and their data representation, the neural network architecture is automatically configured.

The above-quoted portions of Bigus appear to be directed to constructing a system model, which is an abstraction of the target that outputs service levels given certain inputs, by training a neural network based on measured values of the controlled target. A neural prediction agent scans a user-specified source data file and automatically generates the scaling and transformation templates used to pre- and post- process the data going into and out of the neural network. Based on the number of inputs and output fields and their data representation, a neural network architecture is automatically configured.

Applicants thus respectfully submit that the above-quoted portions of Bigus fail to teach or suggest at least the limitation recited in claim 1 wherein a resource abstract model, which may be considered a computer readable description of one or more metrics, is configured to automatically

determine a set of resource metrics to be used to construct a model representative of the resource such that a reduced set of resource metrics is considered. Accordingly, Applicants assert that claim 1 is patentable over Bigus.

Independent claims 11, 20 and 27 include limitations similar to those of claim 1, and are therefore believed allowable for reasons similar to those described above with reference to claim 1.

Dependent claims 2-10, 12-19, 21-26 and 28-33 are believed patentable not only due to their respective dependence on claims 1, 11, 20 and 27, but also because such claims recite patentable subject matter in their own right.

In view of the above, Applicants believe that claims 1-33 are in condition for allowance, and respectfully request withdrawal of the §102 rejection.

Applicants respectfully disagree with the Examiner's characterization, at paragraphs 27-29 on pages 8-9 of the present Office Action, of certain references made of record by the Examiner as prior art. Applicants respectfully note that the Declaration of Prior Invention Under 37 C.F.R. § 1.131 and accompanying exhibit evidence conception and actual reduction to practice of an invention falling within the scope of the claims in the present invention at least as early as July 3, 2002. Applicants note that this date is before the September 2002 publication date of the Bigus reference cited in paragraph 28 and the March 2003 publication date of the Diao reference cited in paragraph 29. Accordingly, these references are removed as prior art by the aforementioned Declaration.

Respectfully submitted,

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William E. Lewis
Attorney for Applicant(s)
Reg. No. 39,274
Ryan, Mason & Lewis, LLP
90 Forest Avenue
Locust Valley, NY 11560
(516) 759-2946